

IN THE CLAIMS

1. (currently amended) In a steam on demand generator comprising a cup assembly, a heating device for heating the cup assembly and an interior thereof, a water injection device for supplying water to the cup assembly, a steam outlet, and a temperature sensor positioned within the cup assembly, wherein water is supplied in quantities so that the interior of the cup assembly remains essentially dry during steam generation, the improvement comprising the cup assembly including a closed bottom thin-walled stainless steel cup formed by a stainless steel thin side wall and a bottom wall connected to the side wall and a stainless steel cap, the side wall, bottom wall, and cap forming the interior, and a hollow cone spray nozzle arranged in the stainless steel cap for supplying water onto an inside surface of the stainless steel thin side wall of the cup, wherein the heating device is brazed to an outside surface of the stainless steel thin side wall of the cup and an end portion of the temperature sensor [[are]] is brazed to the inside surface of the stainless steel thin side wall of the cup.

2. canceled

3. (currently amended) The steam on demand generator of claim 1, wherein the temperature sensor is a thermocouple and at least a longitudinally-disposed side of a tip of the thermocouple directly contacts the side wall, and a tip end surface remains exposed after brazing.

4. canceled

5. (previously presented) The steam on demand generator of claim 1, wherein the heating device is a heating coil that surrounds a lower portion of the cup assembly, the lower portion including the stainless steel thin side wall.

6. (currently amended) In a steam on demand generator comprising a cup assembly, a heating device for heating the cup assembly and an interior thereof, a water injection device for supplying water to the cup assembly, a steam outlet, and a temperature sensor positioned within the cup assembly, wherein water is supplied in quantities so that the interior of the cup assembly remains essentially dry during steam generation, the improvement comprising the cup assembly including a closed bottom thin-walled stainless steel cup formed by a stainless steel thin side wall and a bottom wall connected to the side wall and a stainless steel cap, the side wall, bottom wall, and cap forming the interior, and a hollow cone spray nozzle in the stainless steel cap for supplying water onto an inside surface of stainless steel thin side wall of [[to]] the cup; wherein the heating device is brazed to an outside surface of the stainless steel thin side wall of the cup and an end portion of the temperature sensor [[are]] is brazed to the inside surface of the stainless steel thin side wall of the cup, further comprising a stainless steel stud brazed to a bottom of the stainless steel cup, the stud providing a channel for the temperature sensor to enter the interior.

7. (previously presented) The steam on demand generator of claim 6, wherein the temperature sensor is brazed to a portion of the stud.

8-17. canceled

18. (previously presented) In a steam on demand generator comprising a cup assembly, a heating device for heating the cup assembly and an interior thereof, a water injection device for supplying water to the cup assembly, a steam outlet, and a temperature sensor positioned within the cup assembly, wherein water is supplied in quantities so that the interior of the cup assembly remains essentially dry during steam generation, the improvement comprising the cup assembly including a closed bottom thin-walled stainless steel cup formed by a stainless steel thin side wall and a bottom wall connected to the side wall and a stainless steel cap, the side wall, bottom wall, and cap forming the interior, and a hollow cone spray nozzle in the stainless steel cap for supplying water to the cup, wherein the heating device and an end portion of the temperature sensor are brazed to the stainless steel cup, wherein the end portion of the temperature sensor is brazed at a location on an inside wall of the stainless steel cup, the inside wall receiving spray from the hollow cone spray nozzle, and further wherein the temperature sensor is a thermocouple and at least a side of a tip of the thermocouple directly contacts the inside wall, and a tip end surface remains exposed after brazing so that the inside wall temperature and temperature of the water inside the cup can be sensed.